Montana Natural Heritage Program

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Plant Species of Special Concern

June, 1997

Introduction

The Montana Natural Heritage Program (MTNHP) maintains an inventory of the elements of biological diversity in Montana, including plant species, animal species, and plant communities that are known or suspected to be rare, endemic, disjunct, threatened, or endangered throughout their range or in Montana, or in need of further research.

The list of 346 vascular plant species of special concern and the list of 111 moss taxa and one lichen of special concern in Montana summarizes current status and county distribution. The lists have been developed from numerous sources, including published and unpublished scientific literature, herbarium specimens, the Rare Plant Project (Lesica *et al.* 1984), knowledgeable persons, a variety of cooperating agencies and organizations, and MTNHP field research.

These lists are periodically revised as new data becomes available. Changes since the most recent edition (Heidel 1996) are <u>underlined</u> for quick reference. New additions to the state flora--discoveries, annotations, taxonomic revisions, and obscure references--are in <u>bold and underlined</u>. Printed revisions are produced annually, while periodic updates will be available from our office or via our home page at http://nris.mt.gov/mtnhp.

The publication Sensitive, threatened and endangered vascular plants of Montana (Lesica and Shelly 1991) provides supplemental details on habitat, phenology, distribution on public lands, and other species information. Work is underway to expand and update this publication, including the addition of illustrations and maps, and posting this information on our home page.

Comments and suggestions on list contents are invited, particularly regarding recommended additions or deletions. New location information for any of these taxa is also being solicited. MTNHP can supply current location information and status data for most of these taxa.

Information requests can be placed by calling or writing MTNHP at the above address, via e-mail at mtnhp@nris.mt.gov, or through the World Wide Web at http://nris.mt.gov/mtnhp (follow the link for Information Requests).

Heritage Program Ranks

Taxa are evaluated and ranked by the Heritage Program on the basis of their global (range-wide) status, and their state-wide status according to a standardized procedure used by all Natural Heritage Programs (The Nature Conservancy 1992). These ranks are used to determine protection and data collection priorities, and are revised as new information becomes available.

For each level of distribution—global and state—species are assigned a numeric rank ranging from 1 (critically imperiled) to 5 (demonstrably secure). This reflects the species' relative endangerment and is based primarily on the number of occurrences of that species globally or within the state. However, other information such as date of collection, degree of habitat threat, geographic distribution patterns and population size and trends is considered when assigning a rank, and the number of occurrences listed below are suggestions, not absolute criteria.

For example, Clustered lady's-slipper (*Cypripedium fasciculatum*) is ranked G4 S2. That is, globally the species is apparently secure, while in Montana it is imperiled because of rarity, or because of other factors making it demonstrably vulnerable to extirpation.

Rank Definition

1 Critically imperiled because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially yulnerable to extinction.

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Heritage Program Ranks (continued)

Rank Definition

- 2 Imperiled because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range.
- Vulnerable because of rarity (21 to 100 occurrences) or found in a restricted range (even abundantly at some of its locations) in a restricted range.
- 4 Apparently secure, though it may be quite rare in parts of its range, especially at the periphery.
- Demonstrably secure, though it may be quite rare in parts of its range, especially at the periphery.
- U Possibly in peril, but status uncertain; more information needed.
- H Historical, known only from records over 50 year ago; may be rediscovered.
- X Believed to be extinct; historical records only.

Other Heritage Codes

G#G# Numeric range rank: A range between two of the numeric ranks. Denotes range of uncertainty about the exact rarity of the species.

Subrank

T Rank for subspecific taxon (subspecies or variety); appended to the global rank for the full species, e.g. G4T3.

Qualifiers

- Q Taxonomic questions or problems involved, more information needed; appended to the global rank, e.g. G3Q.
- ? Inexact or uncertain: for numeric ranks, denotes inexactness.

Fish and Wildlife Service Status

The symbols in this column denote the categories defined in the U.S. Fish and Wildlife Service Notice of Review (1980, 1983, 1985, 1990, 1993, 1996) and indicate the status of a taxon under the federal Endangered Species Act of 1973 (16 U.S.C.A. § 1531-1543 (Supp. 1996)).

- LE listed endangered (none in Montana)
- LT listed threatened (two in Montana)
- P proposed endangered or threatened (none in Montana)

C candidate--substantial information exists in U.S. Fish and Wildlife Service files on biological vulnerability to support proposals to list as endangered or threatened (none in Montana)

Note: Species previously recognized as C2, 3B and 3C are no longer tracked by the USFWS (61 FR 7596, Feb. 28, 1996).

Forest Service Status

The status of species on Forest Service lands as defined by the U.S. Forest Service Manual (2670.22). These taxa are listed as such by the Regional Forester (Northern Region) on National Forests in Montana.

- E listed as Endangered (LE) by USFWS
- T listed as Threatened (LT) by USFWS
- S sensitive species, subspecies or variety, for which the Regional Forester has determined there is a concern for population viability within the state, as evidenced by a significant current or predicted downward trend in populations or habitat.
- PS taxon was recommended for consideration as sensitive at the 1995 or 1997 Montana Rare Plant Conference.
- W watch species--species that are recognized by
 Forest Supervisors which are either not known to
 occur on national forest land but predicted to occur
 there on the basis of suitable habitat, or known to
 occur on national forest land but with no immediate
 or predicted threats to population viability.

Bureau of Land Management Status

The status of species on Bureau of Land Management Lands as defined by the BLM 6840 Manual; designated by the Montana State Office of the BLM in 1996.

- S sensitive species--proven to be imperiled in at least part of its range and documented to occur on BLM lands.
- W watch species--either known to be imperiled and suspected to occur on BLM lands; suspected to be imperiled and documented on BLM lands; or needing further study for other reasons.

County Distribution

Counties in which a species occurs are indicated by the first four letters of the county name, except Yellowstone National Park which is designated by YNPK. Distribution information reflects records in the Heritage Program's database at the time of the list update. These can include county records that are historic, extirpated, or unmappable.

Range Notes

Taxa which are globally restricted to an area less than half the size of Montana are noted in this column as either state or regional endemics.

SE state endemic

RE regional endemic, endemic species with range that extends beyond the state boundaries

Changes from the May, 1996 List

Additions and deletions to the state list are the result of changes in either our knowledge of the species or new information on distribution and/or population size.

Additions

Vascular Plants

Botrychium campestre
Botrychium pedunculosum
Carex chalciolepis
Carex nelsonii
Carex norvegica ssp inserrulata
Carex vaginata
Eriogonum visheri
Lycopodium sitchense

Bryophytes

Didymodon rigidulus var. gracilis
Entosthodon rubiginosus
Herzogiella striatella
Hypnum callichroum
Leucolepis acanthoneuron
Phascum cuspidatum
Physomitrium pyriforme
Pseudocrossidium obtusulum
Pterygoneurum lamellatum
Pterygoneurum subsessile
Racomitrium brevipes
Racomitrium pygmaeum
Sphagnum wulfianum
Tortula bartramii

Deletions

Vascular Plants

Aster simplex var. ramosissimus
Bidens vulgata var. schizantha
Carex eburnea
Chrysopsis depressa (Heterotheca depressa)
Cuscuta pentagona
Eleocharis xyridiformis
Erigeron bellidiastrum
Erigeron flabellifolius
Erigeron flagellaris
Eriogonum lagopus
Eriophorum viridicarinatum
Evax prolifera

Gilia inconspicua
Helenium hoopesii
Ligusticum porteri
Lilium columbianum
Machaeranthera commixta
Madia minima
Mimulus glabratus var. fremontii
Oryzopsis contracta
Papaver pygmaeum
Pedicularis contorta var. rubicunda
Polygonum polygaloides
Scirpus pendulus
Spiraea x pyramidata
Trisetum x orthochaetum

Selected References

Dorn, R. D. 1984. Vascular Plants of Montana. Mountain West Publishing, Cheyenne, WY. 276 pp.

Heidel, B. L. 1996. Montana plant species of special concern. [Unpublished list.] Montana Natural Heritage Program, Helena. 31 pp.

Lesica, P., G. Moore, K. M. Peterson, and J. H. Rumeely. 1984. Vascular plants of limited distribution in Mon tana. Montana Academy of Science Monograph No. 2.

Lesica, P. and J. S. Shelly. 1991. Sensitive, threatened and endangered vascular plants of Montana. Montana Natural Heritage Program, Montana State Library, Helena, Montana

The Nature Conservancy, Conservation Science Divison, in association with the Network of Natural Heritage Programs and Conservation Data Centers. October 1992. Biological and Conservation Data System (Supplement 2+, released March, 1994). Arlington, Virginia.

U.S. Fish and Wildlife Service. 1996. Notice of Review of Plant and Animal Taxa for Listing as Endangered and Threatened Species. 61 FR 7596, February 28, 1996.

U.S. Fish and Wildlife Service. 1993. Endangered and threatened wildlife and plants. 50 CFR 17.11 & 17.12, August 23, 1993. U. S. Govt. Printing Office: 1993-342-477/94033. 40 pp.

More Information

Extensive additional information, including location data, is available on most species listed here. MTNHP serves as a clearinghouse for information on species of special concern in the state, and each year responds to hundreds of data requests.

The preferred citation for this document is:

Heidel, B. 1997. Montana plant species of special concern. [Unpublished list.] Montana Natural Heritage Program, Helena. 34 pp.

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111	V ascular Flant Opecies of Opecial Concern, June 1337	pecies of	Specia	Conc	ern, Ju	ne 13		
Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM	County Distribution	Range Notes
Adoxa moschatellina Musk-root	Adoxaceae	G5	S1		S	M	Gran, Jeff, Stil	
Agastache cusickii Cusick's Horse-mint	Lamiaceae	G3G4	SI		PS	S	Beav	
Agoseris lackschewitzii Pink Agoseris	Asteraceae	G4	S3		S		Beav, Carb, Casc, Deer, Gran, Judi, Madi, Meag, Park, Silv, Swee	RE
Agrostis borealis Northern Bentgrass	Poaceae	GŞ	S2				Miss, Rava	
Allium acuminatum Tapertip Onion	Liliaceae	G5	S1		S		Madi, Rava, Sand	
Allium columbianum Columbia Onion	Liliaceae	G3	SI				Sand	
Allium fibrillum Fringed Onion	Liliaceae	G4	. S2		S		Flat, Glac, Linc, Miss, Pond	RE
Allium parvum Dwarf Onion	Liliaceae	G5	S2				Rava	
Allium simillimum Dwarf Onion	Liliaceae	G4	S1				Gall, Rava	RE
Allotropa virgata Candystick	Monotropaceae	G4	S3		S		Beav, Deer, Gran, Rava	
Amerorchis rotundifolia Round-leaved Orchis	Orchidaceae	GS	S2S3		S	\otimes	Flat, Glac, Lewi, Linc, Pond, Powe, Teto	
Ammannia coccinea Scarlet Ammannia	Lythraceae	GS	SI				Garf, Phil	
Amorpha canescens Lead Plant	Fabaceae	G5	SH				Cart, Rose	
Antennaria densifolia Dense-leaved Antennaria	Asteraceae	G3	S1		S		Deer, Gran	
Aquilegia brevistyla Short-styled Columbine	Ranunculaceae	GS	S2		S		Judi, Swee	

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2		Status County Distribution	
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ial Concern, Jun	FWS	Status	
f Speci	State	Rank	
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Vascular Plant S		Family	
	Cojentific Name	Common Name	

	V ascular Flant Species of Special Concern, June 133	pecies of	Specia	Touc It	ern, Ju	ne 193		
Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS	BLM Status	County Distribution	Range Notes
Aquilegia formosa Sitka Columbine	Ranunculaceae	GS	S1				Beav	
Arabis demissa var languida Daggett Rock Cress	Brassicaceae	G5T3	SI			*	Carb	!
Arabis fecunda Sapphire Rockcress	Brassicaceae	G2	S2		S	S	Beav, Rava, Silv	SE
Arabis lyrata var kamchatica Lyre-leaf Rockcress	Brassicaceae	G5T5?	SI				Flat	
Arctostaphylos patula Green-leaf Manzanita	Ericaceae	G4	SI				Lake, Sand	
Artemisia norvegica var saxatilis Boreal Wormwood	Asteraceae	G5T?	SH				Glac	
Asclepias incarnata Swamp Milkweed	Asclepiadaceae	GS	SI				Carb, Fall	
Asclepias ovalifolia Ovalleaf Milkweed	Asclepiadaceae	G5?	SI			≽	Cart	-
Asclepias stenophylla Narrowleaf Milkweed	Asclepiadaceae	G4G5	SI			M	Cart, Rose	
Asplenium trichomanes Maidenhair Spleenwort	Aspleniaceae	G5	SX		S	≽	Flat	
Aster frondosus Alkali Aster	Asteraceae	G4	SI				Sand	
Aster glaucodes Gray Aster	Asteraceae	G3G4	SI				Carb	
Astragalus aretioides Sweetwater Milkvetch	Fabaceae	G4	S2			M	BigH, Carb	3 3
Astragalus barrii Barr's Milkvetch	Fabaceae	G3	S3		S	*	BigH, Cart, Powd, Rose	RE
Astragalus ceramicus var apus Painted Milkvetch	Fabaceae	G4T3	SI			S	Beav	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
Astragalus convallarius Lesser Rushy Milkvetch	Fabaceae	GSTS	S2			*	Beav, Broa, Lewi	
Astragalus geyeri Geyer's Milkvetch	Fabaceae	G3G4T3T4	S2				Carb, Cust, Daws, Garf	
Astragalus grayi Gray's Milkvetch	Fabaceae	G4?	SI				Carb	RE
Astragalus molybdenus Leadville Milkvetch	Fabaceae	C3	S2		S		Teto	RE
Astragalus oreganus Wind River Milkvetch	Fabaceae	G4?	S1			≽	Carb	RE
Astragalus racemosus Raceme Milkvetch	Fabaceae	G5T4	SI			*	Cart, Fail	
Astragalus scaphoides Bitterroot Milkvetch	Fabaceae	G3	S2 .		PS	S	Beav	RE
Astragalus terminalis Railhead Milkvetch	Fabaceae	G3G4	S2			S	Beav, Madi	RE
Athysanus pusillus Sandweed	Brassicaceae	G4	SI		S		Rava	
Atriplex truncata Wedge-leaved Saltbush	Chenopodiaceae	G5	S1			W	Beav, Lake, Lewi	
Bacopa rotundifolia Roundleaf Water-hyssop	Scrophulariaceae	G5	S1			M	Casc, Ferg, Garf, Phil	•
Balsamorhiza macrophylla Large-leafed Balsamroot	Asteraceae	G3G5	S1		S	\bowtie	Beav, Gall, Madi	
Bidens beckii Beck Water-marigold	Asteraceae	G4G5TU	S2				Flat, Lake, Miss	
Bidens comosa Threelobed Beggarticks	Asteraceae	G5	SI			W	Chou, Hill, Rich	
Boisduvalia densiflora Dense Spike-primrose	Onagraceae	G5	SH				Sand	

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97	County Distribution	
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al Con	FWS Status	
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t Species of Special Concern, June 1997	Global Rank	
Vascular Plant	Rossili	Lanny
	Scientific Name	Common Name

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Scientific Name	7 (oct)	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Notes
Common Name	Ophioglossaceae	G3?	SI		S		Flat, Lewi, Linc	
Upward-lobed Moonwort	•							
Botrychium campestre Prairie Dunewort	Ophioglossaceae	<u>G3</u>	SI					
Botrychium crenulatum Wavy Moonwort	Ophioglossaceae	G3	S2		S		Flat, Lake, Linc, Sand	
Botrychium hesperium Western Moonwort	Ophioglossaceae	G3	SI		S		Deer, Flat, Glac	
Botrychium lineare Linearleaf Moonwort	Ophioglossaceae	GI	SI				Lake	
Botrychium minganense Mingan Island Moonwort	Ophioglossaceae	G4	S		S		Casc, Flat, Glac, Gran, Lake, Linc, Miss, Pond, Sand, Teto	
Botrychium montanum Monntain Moonwort	Ophioglossaceae	G3	. ZS		S		Flat, Lake, Linc, Sand	
Botrychium paradoxum Peculiar Moonwort	Ophioglossaceae	G2	SI		S		Deer, Flat, Glac, Gran, Linc, Pond, Teto	
Botrychium pedunculosum Stalked Moonwort	Ophioglossaceae	G37	SI				Linc	
Botrychium spathulatum Spoon-leaf Moonwort	Ophioglossaceae	G3G4	SI		PS		Lake	
Brasenia schreberi Watershield	Cabombaceae	G5	S2				Flat, Lake, Linc, Miss	
Braya humilis Low Braya	Brassicaceae	G4	SI				Beav	L C
Calamagrostis tweedyi Cascade Reedgrass	Poaceae	G3	S2				Mine, Miss, Rava, Sand	2
Calochortus bruneaunis	Liliaceae	G5	SH				Beav	
Camissonia andina Obscure Evening-primrose	Onagraceae	G4	SI			S	Carb, Miss, Rava	

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	Vascular Plant Species of Special Concern, June 1997	Species of	f Speci	al Con	cern, Tu	ne 199	26	ν
Scientific Name Common Name	Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Range Notes
Camissonia parvula Small Camissonia	Onagraceae	G4	S1			S	Carb	
Cardamine oligosperma var kamtschatica Few-seeded Bittercress	Brassicaceae	GST?	SI				Flat	
Carex amplifolia Big-leaf Sedge	Cyperaceae	G4	S1				Sand	
Carex chalciolepis Copper-scale Sedge	Cyperaceae	GST?	SI					
Carex chordorrhiza Creeping Sedge	Cyperaceae	G5	<u>S2</u>		S		Flat, Linc, Powe	
Carex comosa Bristly Sedge	Cyperaceae	G5	SI				Flat	
Carex crawei Craw's Sedge	Cyperaceae	G5	S2			S	Casc, Pond, Powe, PRAI, Teto	
Carex gravida Pregnant Sedge	Cyperaceae	G5T?	S1			≽	BigH, Powd, Rose	
Carex incurviformis var incurviformis Maritime Sedge	Cyperaceae	G4G5T?	SI				Deer, Glac, Teto	
Carex lenticularis var dolia Goose-grass Sedge	Cyperaceae	G5T2Q	S1		8		Flat, Glac	æ
Carex livida Pale Sedge	Cyperaceae	G5	83		S		Flat, Glac, Lake, Lewi, Miss, Powe, Teto	
Carex multicostata Many-ribbed Sedge	Cyperaceae	G5	SI		1	A	Beav, Gall, Park	
Carex nelsonii Nelson's Sedge	Cyperaceae	8	SI					
Carex neurophora Alpine-nerved Sedge	Cyperaceae	G4	SZ				Deer, Gran, Madi, Miss, Park, Rava	
Carex norvegica ssp inserrulata Toothed Scandinavian Sedge	Cyperaceae	G5T?Q	SI					

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
Carex norvegica ssp stevenii Steven's Scandinavian Sedge	Cyperaceae	G5T?	<u>S1</u>					
Carex occidentalis Western Sedge	Cyperaceae	G4	SH			≽	Beav	
Carex parryana ssp idahoa Idaho Sedge	Cyperaceae	G4T2	S2		S	S	Beav, Silv	RE
Carex paupercula Poor Sedge	Cyperaceae	G5T5	83		S		Flat, Lake, Linc, Miss, Rava, Teto	
Carex petricosa Rock Sedge	Cyperaceae	G4	S1				Glac	
Carex prairea Prairie Sedge	Cyperaceae	G5?	SI				Flat	
Carex rostrata Beaked Sedge	Cyperaceae	G5	SI				Flat	
Carex scoparia Pointed Broom Sedge	Cyperaceae	GS	SI				Miss, Rava	
Carex stenoptila Small-winged Sedge	Cyperaceae	G3?	S1				Flat, Rava, YNPK	
Carex sychnocephala Many-headed Sedge	Cyperaceae	G4	SI				Casc, Glac, Lake, Linc, Sher	
Carex tenuiflora Thin-flowered Sedge	Cyperaceae	G5	SI				Flat	r F
Carex tincta Slender Sedge	Cyperaceae	G4G5	SU				Glac, Lake, Park	7
Carex vaginata Sheathed Sedge	Cyperaceae	8	SI					Į 6
Castilleja cervina Deer Indian Paintbrush	Scrophulariaceae	G3G4	SI				Flat, Miss, Powe	<u> </u>
Castilleja covilleana Coville Indian Paintbrush	Scrophulariaceae	G3G4	S2		S		Rava	Ā.

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Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Range Notes
Scrophulariaceae	GS GS	S2				Deer, Gall, Jeff, Madi, Park	
Scrophulariaceae	G3G4	82		S	*	Gall, Madi, Park, YNPK	RE
Rhamnaceae	G5T?	SH			M	Powd	
Celastraceae	G5	S1			M	Daws	
Gentianaceae	G5	SH				BigH	
Primulaceae	G5	SI			*	Casc, Lake, Miss, Rava	
Rosaceae	GSTU	S1			M	Trea	
Chenopodiaceae	G3	S1			M	Cart, Casc, Cust	
Saxifragaceae	GŞ	<u>S3</u>				Gran, Rava	
Asteraceae	G5T1	SI		S		Beav	RE
Asteraceae	G4	SI				Flat, Mine, Sand	
Asteraceae	G2Q	S2				Broa, Casc, Jeff, Judi, Lewi, Meag, Whea	SE
Onagraceae	G4	S2		S		Linc, Sand	
Portulacaceae	G4	S1				Sand	
Capparaceae	G5	S1			W	BigH, Carb	
	Scrophulariaceae Rhamnaceae Celastraceae Gentianaceae Primulaceae Rosaceae Asteraceae Asteraceae Asteraceae Asteraceae Chenopodiaceae	alariaceae aceae aceae aceae aceae ceae aceae aceae aceae aceae aceae	alariaceae G5 S alariaceae G3G4 S aceae G5T7 S aceae G5T7 S aceae G5TU S aceae G5TU S ceae G5TU S ceae G5TU S ceae G5TU S ceae G5 S aceae G4 S acaceae G4 S raceae G5 S	Ilariaceae G5 S2 ulariaceae G3G4 S2 aceae G5T7 SH aceae G5T7 SH aceae G5 S1 aceae G5 S1 ceae G5TU S1 ceae G5TU S1 ceae G5TU S1 ceae G5TU S1 ceae G5 S2 aceae G4 S1 aceae G4 S2 acaceae G4 S1 raceae G4 S1 raceae G4 S1 raceae G4 S1 raceae G5 S1	Ilariaceae G5 S2 ulariaceae G3G4 S2 8 aceae G5T7 SH 8 aceae G5 S1 8 aceae G5 S1 8 aceae G5TU S1 8 ceae G5TU S1 8 ceae G5T1 S1 8 ceae G5T1 S1 8 aceae G4 S1 8 aceae G4 S2 8 aceae G4 S1 8 aceae G4 S1 8 aceae G4 S1 8 aceae G4 S1 8 aceae G5 S1 8	Ilariaceae G5 S2 S ulariaceae G3G4 S2 S aceae G5T7 SH S aceae G5 S1 S aceae G5TU S1 S ceae G5TU S1 S ceae G5TU S1 S ceae G5T S1 S ceae G5T S1 S ceae G4 S1 S aceae G4 S2 S aceae G4 S1 S raceae G4 S1 S raceae G4 S1 S raceae G5 S1 S	Ilariaceae G5 S2 S W C Ilariaceae G3G4 S2 S W C aceae G5T7 SH W P naceae G5 S1 W I aceae G5TU S1 W C naceae G4 S1 S S naceae G4 S2 S S naceae G4 S1 W C naceae G5 S1 W W

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS	Status	Status	County Distribution N	Notes
Collomia tinctoria Yellow-staining Collomia	Polemoniaceae	GS	SI				Casc, Flat, Lake, Rava	
Conioselinum scopulorum Hemlock Parsley	Apiaceae	G4	SI			A	BigH, Carb	
Corydalis sempervirens Pale Corydalis	Fumariaceae	G4G5	S1				Flat, Glac, Linc	
Cryptantha fendleri Fendler Cat's-eye	Boraginaceae	G4	S1			⋈	Beav, Sher	
Cryptantha flavoculata Pale Yellow Cryptantha	Boraginaceae	GS	SI				Carb	
Cryptantha humilis Cryptantha	Boraginaceae	G4?	SU			W		
Cryptantha scoparia Miner's Candle	Boraginaceae	G4	SI			S	Carb	
Cyperus acuminatus Short-pointed Flatsedge	Cyperaceae	G5	S1			≫	Casc, Cust, Sand	
Cyperus erythrorhizos Red-root Flatsedge	Cyperaceae	G5	SH				Flat, Miss	
Cyperus rivularis Shining Flatsedge	Cyperaceae	G5	S1				Miss, Rava	
Cyperus schweinitzii Schweinitz' Flatsedge	Cyperaceae	G5	S1			A	Cart, Casc, Cust, Sher	
Cypripedium fasciculatum Clustered Lady's-slipper	Orchidaceae	G4	S2		S		Lake, Mine, Sand	
Cypripedium parviflorum Small Yellow Lady's-slipper	Orchidaceae	G5	S2S3		S	A	Flat, Gall, Gran, Judi, Lake, Lewi, Linc, Miss, Park, Stil, Swee, Teto	
Cypripedium passerinum Sparrow's-egg Lady's-slipper	Orchidaceae	G4G5	S2		S		Flat, Lake, Lewi, Linc, Pond, Powe, Teto	
Cystopteris montana Mountain Bladder Fern	Dryopteridaceae	GŞ	SH				Glac	

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Scientific Name		Global State FWS FS BLM	State	FWS	FS	BLM		Range
Common Name	Family	Rank	Rank	Status	Status	Status	County Distribution	Notes
<i>Dalea enneandra</i> Nine-anther Dalea	Fabaceae	G5	S1			M	Cust, Rich	
Dalea villosa Silky Prairie Clover	Fabaceae	G5T?	S1			×	Cart	
Dichanthelium oligosanthes var scribnerianum Scribner's Panic Grass	Poaceae	G5T5	SI			*	Lake, Powd	
Downingia laeta Great Basin Downingia	Campanulaceae	G5	SI			*	Beav, Lewi, Madi, Teto	
Draba densifolia Dense-leaf Draba	Brassicaceae	G5	. ZS				Glac, Jeff, Lewi, Park, Silv	
Draba fladnizensis White Arctic Draba	Brassicaceae	G4	S1				Carb, Deer	
<i>Draba globosa</i> Round-fruited Draba	Brassicaceae	G3G4	S1			*	Beav, Madi	RE
Draba macounii Macoun's Draba	Brassicaceae	G3	SI				Flat, Glac	
<i>Draba porsildii</i> Porsild's Draba	Brassicaceae	G3	S1				Carb	
Draba ventosa Wind River Draba	Brassicaceae	G3	S1				Beav, Madi	RE
Drosera anglica English Sundew	Droseraceae	G5	S2				Flat, Gall, Lake, Lewi, Linc, Madi, Miss, Powe, Rava	
Drosera linearis Linear-leaved Sundew	Droseraceae	G4	S1		S		Flat, Lewi, Powe	
Dryas integrifolia Entire-leaved Avens	Rosaceae	G5	SI				Ferg, Gold, Madi	
Dryopteris cristata Buckler Fern	Dryopteridaceae	G5	S2		S		Flat, Lake, Miss, Rava	
Elatine brachysperma Short-seeded Water-wort	Elatinaceae	G5	SU				Gall, Miss	

	Vascular Plant	Species of Special Concern, June 1997	f Speci	al Con	cern, Ju	ne 19	97	•
Scientific Name		- Global Rank	State Rank	FWS Status	FS	BLM Status	County Distribution	Range
Common Name Elatine californica	Elatinaceae	G5	ns				Casc, Lake	
California Waterwort Eleocharis rostellata	Cyperaceae	G5	S2			*	Carb, Flat, Lake, Madi, Sand, Teto	
Beaked Spikerush Elodea longivaginata	Hydrocharitaceae	G4G5	S1			M	Glac, Libe, Phil	
Long Sheath Waterweed Elymus flavescens	Poaceae	G4	SI			S	Beav, Madi	
Sand Wildrye Elymus innovatus	Poaceae	G5	S1		S		Casc, Glac, Pond	
Northern Wild-rye Epipactis gigantea	Orchidaceae	G4	S2		S	M	Carb, Casc, Flat, Gran, Lake, Madi, Powe, Teto	
Giant Helleborine Erigeron asperugineus	Asteraceae	G4	SI		S	W	Beav, Madi, Rava	RE
Idaho Fleabane Erigeron eatonii ssp eatonii	Asteraceae	GSTS	S1		8		Flat, Swee	
Eaton's Daisy Friceron evermannii	Asteraceae	G4	SI		S		Rava	RE
Evermann Fleabane	Asteraceae	G5T4	S1			*	Carb, Madi, Park	
Beautiful Fleabane	Asteraceae	GST3	S3		PS		Flat, Lewi, Pond, Teto	RE
Erigeron lackschewitzii Front Range Fleabane		3	S				Beav, Madi	
Erigeron leiomerus Smooth Fleabane	Asteraceae	5	<u> </u>		v		Reav Rava	
Erigeron linearis Linearleaf Fleabane	Asteraceae	S			מ		Reav	
Eriogonum caespitosum Mat Buckwheat	Polygonaceae	\$5	Z :			۵	4.00	
Eriogonum salsuginosum Smooth Buckwheat	Polygonaceae	G4?	S			2		

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS Status	BLM Status	County Distribution	Range Notes
Eriogonum visheri Visher's Buckwheat	Polygonaceae	G3	S1		S			
Eriophorum callitrix Sheathed Cotton-grass	Cyperaceae	GS	SI				Carb	
Eriophorum gracile Slender Cottongrass	Cyperaceae	GS	SO		PS		Flat, Lake, Linc	
Eupatorium maculatum Joe-pye Weed	Asteraceae	GSTU	SI			W	BigH, Carb	
Eupatorium occidentale Western Boneset	Asteraceae	G4	S1		S		Mine, Rava	
Euphrasia arctica var disjuncta Disjunct Eyebright	Scrophulariaceae	G5	SI				Glac	
Eustoma grandiflorum Showy Prairie-gentian	Gentianaceae	G5	SI	•		W	McCo	
Festuca vivipara Viviparous Fescue	Poaceae	G4G5Q	S2				Flat, Glac	
Gentiana glauca Glaucous Gentian	Gentianaceae	G4G5	SI				Flat	
Gentiana prostrata Pygmy Gentian	Gentianaceae	G5	S2				Beav, Carb, Deer, Glac, Stil	
Gentianella tenella Slender Gentian	Gentianaceae	G4G5	S2				Carb, Madi, Park, Stil	
Gentianopsis macounii Macoun's Gentian	Gentianaceae	G5	S1		PS		Glac, Teto	
<i>Gentianopsis simplex</i> Hiker's Gentian	Gentianaceae	G4	SI		S	M	Beav, Carb, Miss	
Glossopetalon nevadense Spiny Greenbush	Crossosomataceae	G59Q	S1		S		Rava	
<i>Goodyera repens</i> Northern Rattlesnake-plantain	Orchidaceae	G5	83		S		Ferg, Flat, Judi, Meag, Whea	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS	FS	BLM	County Distribution	Range Notes
Gratiola ebracteata Bractless Hedge-hyssop	Scrophulariaceae	G4	SI				Casc, Glac, Teto, Yell	
<i>Grayia spinosa</i> Spiny Hopsage	Chenopodiaceae	G5	S2			W	Beav, BigH, Carb	
Grindelia howellii Howell's Gum-weed	Asteraceae	G3	S2S3		S		Miss, Powe	RE
Gymnosteris parvula Small-flower Gymnosteris	Polemoniaceae	G4	HS				Gall	
Halenia deflexa Spurred Gentian	Gentianaceae	GSTU	S2		PS		Flat, Linc	
Halimolobos perplexa var lemhiensis Puzzling Rockcress	Brassicaceae	G4T4	SI		S		Rava	SE
Haplopappus aberrans Idaho Golden-weed	Asteraceae	G3	SI		Ø		Rava	RE
Haplopappus carthamoides var subsquarrosus Beartooth Large-flowered Goldenweed	Asteraceae	G4G5T2T3	S2			M	Carb	RE
Haplopappus macronema var macronema Discoid Goldenweed	Asteraceae	G4G5T4	SI		S		Beav, Gall	
Haplopappus nanus Dwarf Goldenweed	Asteraceae	G5	S1				Beav	
Haplopappus pygmaeus Pygmy Goldenweed	Asteraceae	G4	SH				Deer, Gall	
Helenium hoopesii Orange Sneezeweed	Asteraceae	G5	SU				Beav	
Hemicarpha drummondii Drummond's Hemicarpha	Cyperaceae	G4G5	SH				Carb	
Heteranthera dubia Water Star-grass	Pontederiaceae	G5	SI				Flat, Sand	
Heterocodon rariflorum Western Pearl-flower	Campanulaceae	G\$	S1				Lake, Rava, Sand	

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Scientific Name	Ē	Global	State	FWS	FS	BLM	County Distribution	Range Notes
Common Name	Family	Kank	Kank	Status	Olatins	Otorina	County Distriction	
Howellia aquatilis Water Howellia	Campanulaceae	G2	S2	LT	⊣		Lake, Miss	
Hutchinsia procumbens Hutchinsia	Brassicaceae	GS	SI			M	Beav, Powe	
Idahoa scapigera Scalepod	Brassicaceae	GS	S1		S		Rava	
Ipomopsis congesta ssp crebrifolia Ballhead Gilia	Polemoniaceae	G5T3	S2				Beav	RE
Ipomopsis minutiflora Small-flower Standing-cypress	Polemoniaceae	G2G3	SI				Rava	
Juncus acuminatus Tapered Rush	Juncaceae	G5	SI	,			Teto	
Juncus albescens Three-flowered Rush	Juncaceae	G5	S2				Flat, Glac, Park	
Juncus covillei var covillei Coville's Rush	Juncaceae	G4G5T5	SU				Mine, Miss, Rava	
Juncus covillei var obtusatus Coville's Rush	Juncaceae	G4G5T4	SO					
Juncus hallii Hall's Rush	Juncaceae	G4G5	S2		ß		Beav, Madi, Meag, Powe, Silv	
Juncus triglumis Three-flowered Rush	Juncaceae	G5T5	83				Carb, Stil	
Kalmia occidentalis Pale Laurel	Ericaceae	G5	S1				Flat, Miss	
Kelloggia galioides Kelloggia	Rubiaceae	G5	SI				Mine	
Kobresia macrocarpa Large-fruited Kobresia	Cyperaceae	G\$	S1		S		Carb	
Kobresia simpliciuscula Simple Kobresia	Cyperaceae	G\$	S2		≽		Beav, Glac, Gran, Park, Teto	

	Vascular Plant	Species of Special Concern, June 1997	f Specia	I Con	cern, Ju	ne 19	97	
Scientific Name		Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Range
Kochia americana	Chenopodiaceae	G5	SU				Beav	
Red Sage Koenigia islandica	Polygonaceae	G4	S1				Carb	
Island Koenigia Lagophylla ramosissima	Asteraceae	G5	SI				Lake, Sand	
Slender Hareleat Lathyrus bijugatus	Fabaceae	G4	S1				Flat, Linc	RE
Latah Tule Pea Leptodactylon caespitosum	Polemoniaceae	G3G4	S1			M	Carb	
Leptodactylon Lesquerella carinata var languida Gornet Bladdernod	Brassicaceae	G4T1	S1			S	Gran	SE
Lesquerella humilis Ritterroot Rladderrood	Brassicaceae	G1	SI		S		Rava	SE
Lesquerella lesicii Lesica's Bladderpod	Brassicaceae	G1	SI			S	Carb	SE BE
Lesquerella paysonii Payson Bladderpod	Brassicaceae	G3	SI		ω :	C	Beav, Gran	5 K
Lesquerella pulchella Beautiful Bladderpod	Brassicaceae	G 2	S2		S)	'n	Beav	
Lewisia columbiana var wallowensis Columbia Lewisia	Portulacaceae	G4T4	SI				Nava T	
Lewisia pygmaea var nevadensis Nevada Bitterroot	Portulacaceae	G4	S1				Beav, Deer, Kava	
Lilaea scilloides Flowering Quillwort	Juncaginaceae	G4	SI			Th.	Cart Daws McCo	
Linaria canadensis Blue Toadflax	Scrophulariaceae	G4G5	S		(\$	Carl, Daws, 11500	
Liparis loeselii Loesel's Twaydlade	Orchidaceae	G5	S		n		Lanc	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Range Notes
Lobelia spicata Pale-spiked Lobelia	Campanulaceae	G5	SH				Rich, Sher	
Lomatium attenuatum Taper-tip Desert-parsley	Apiaceae	. G2	S2			S	Beav, Madi	RE
Lomatium geyeri Geyer's Biscuitroot	Apiaceae	G3G4	SI		S		Linc	
Lomatium nuttallii Nuttall Desert-parsley	Apiaceae	G4	S1			*	ВідН	
Lomatogonium rotatum Felwort	Gentianaceae	G\$	SI			×	Beav, Rava	
Lycopodium dendroideum Treelike Clubmoss	Lycopodiaceae	GŞ	S1			*	Flat, Glac	
Lycopodium inundatum Northern Bog Clubmoss	Lycopodiaceae	G5	SI		S		Flat, Miss	
Lycopodium lagopus Running Pine	Lycopodiaceae	G5T?	SI					
Lycopodium sitchense Alaskan Clubmoss	Lycopodiaceae	8	SI					
Maianthemum canadense Wild Lily-of-the-valley	Liliaceae	G5T4	S1	,			Cart	
Malacothrix torreyi Desert Dandelion	Asteraceae	G4	SI			Ø	Carb	
Mentzelia montana White-bract Stickleaf	Loasaceae	G4	SU					
Mentzelia nuda Bractless Mentzelia	Loasaceae	G5	SI		M	M	Cust, Daws, Vall	
Mentzelia pumila Dwarf Mentzelia	Loasaceae	G4	S2		Ø	≽	Carb	
Mertensia bella Oregon Bluebells	Boraginaceae	G4	SI		S		Miss	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Kange Notes
Mimulus breviflorus Short-flowered Monkeyflower	Scrophulariaceae	G4	SI				Flat	
Mimulus nanus Dwarf Purple Monkeyflower	Scrophulariaceae	G5	S1				Gall, Rava	
Mimulus primuloides Primrose Monkeyflower	Scrophulariaceae	G4	S2		S		Beav, Rava	
Mirabilis hirsuta Hairy Four-o'clock	Nyctaginaceae	G5	S1			*	Cart, Chou, Sher	
Myosotis verna Early Forget-me-not	Boraginaceae	G5	SI				Flat, Lake, Miss, Rava	
Najas guadalupensis Guadalupe Water-nymph	Najadaceae	G5	S1			*	Casc, Flat, Lake, Rava	
Nama densum Nama	Hydrophyllaceae	G5	SI			S	Carb	
Nymphaea tetragona Pygmy Water-lily	Nymphaeaceae	G5	SI				Flat, Lake, Miss	
Oenothera pallida var idahoensis Pale Evening-primrose	Onagraceae	G5T4Q	SI			S	Beav	RE
Ophioglossum pusillum Adder's Tongue	Ophioglossaceae	GS	S3		S		Flat, Lake, Linc, Miss	
Orogenia fusiformis Tapered-root Orogenia	Apiaceae	GŞ	S2		Ω.		Beav, Madi, Miss, Rava	
Oxytropis campestris var columbiana Columbia Crazyweed	Fabaceae	G5T3Q	S1				Flat, Lake	RE
Oxytropis deflexa var foliolosa Pendent-pod Ctazyweed	Fabaceae	G5T?	SI				Madi	
Oxytropis parryi Parry's Crazyweed	Fabaceae	G5	S1				Beav	
Oxytropis podocarpa Stalked-pod Crazyweed	Fabaceae	G4	SI		S		Glac, Teto	

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Kange Notes
Papaver kluanensis Alnine Poppo	Papaveraceae	G3?Q	SI				Carb, Park, Swee	
Penstemon angustifolius Narrowleaf Penstemon	Scrophulariaceae	G5	S2			W	Cart, Daws, Miss	
Penstemon attenuatus var militaris Taper-leaved Beardtongue	Scrophulariaceae	G4T4	S1		W		Rava	RE
Penstemon globosus Globe Beardtongue	Scrophulariaceae	G4	S2				Gran	
Penstemon grandiflorus Large Flowered Beardtongue	Scrophulariaceae	G5?	S1				Cust	
Penstemon lemhiensis Lemhi Beardtongue	Scrophulariaceae	G3	S2		S	S	Beav, Deer, Rava, Silv	RE
Penstemon payettensis Payette Beardtongue	Scrophulariaceae	G4	SI				Rava	RE
Penstemon whippleanus Whipple's Beardtongue	Scrophulariaceae	G5	S1			S	Beav, Madi	
Petasites frigidus var nivalis Palmate-leaved Coltsfoot	Asteraceae	G5T?	S1		PS		Flat, Glac	
Phacelia incana Hoary Phacelia	Hydrophyllaceae	G3G4	S2			A	Beav	
Phacelia scopulina Dwarf Phacelia	Hydrophyllaceae	G4	SH			8	Madi, Silv	
Phacelia thermalis Hot Spring Phacelia	Hydrophyllaceae	G3G4	S1			8	Ferg, Garf, Phil	
Phippsia algida Ice Grass	Poaceae	GŞ	SZ				Carb, Stil	
<i>Phlox andicola</i> Plains Phlox	Polemoniaceae	G4	SI.			≽	Cart, Daws, Rose	
Phlox kelseyi var missoulensis Missoula Phlox	Polemoniaceae	G2	S2		S		Casc, Gran, Judi, Lewi, Meag, Miss, Powe	SE

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Scientific Name		Global	State	FWS	FS	BLM	County Distribution	Range Notes
Common Name	Канпи	TARTE	THE STATE OF THE S	000000				
Physaria brassicoides Double Bladderpod	Brassicaceae	GŞ	SI				Cart	RE
Physaria didymocarpa var lanata Woolly Twinpod	Brassicaceae	G5T2	SU				BigH	RE
Plagiobothrys leptocladus Slender-branched Popcorn-flower	Boraginaceae	G4	S1			*	Cust, Glac, Phil	
Poa curta Short-leaved Bluegrass	Poaceae	G4	S1			≽	Carb	
Poa laxa ssp banffiana Banff Loose-flowered Bluegrass	Poaceae	G5?T1	SU					
Polygonum douglasii ssp austinae Austin's Knotweed	Polygonaceae	G5T4	S2S3		S		Broa, Flat, Lewi, Madi, Pond, Teto	
Polystichum kruckebergii Kruckeberg's Sword-fem	Dryopteridaceae	G4	SI	•			Deer, Lake, Miss	
Polystichum scopulinum Mountain Holly-fern	Dryopteridaceae	G5	S1				Rava, Sand	
Potamogeton obtusifolius Blunt-leaved Pondweed	Potamogetonaceae	G5	S2		S		Flat, Glac, Lake, Miss	
Potentilla brevifolia Short-leaved Cinquefoil	Rosaceae	G4	SI				Madi	RE
Potentilla hyparctica Low Arctic Cinquefoil	Rosaceae	G4G5	S1				Carb	
Potentilla plattensis Platte Cinquefoil	Rosaceae	G4	S1			∌	Beav, BigH, Carb	
Potentilla quinquefolia Five-leaf Cinquefoil	Rosaceae	G5T4	S2				Flat, Glac, Madi, Pond, Vall, YNPK	
Potentilla uniflora One-flowered Cinquefoil	Rosaceae	G\$	SI				Carb, Glac, Gran	ŗ
<i>Primula alcalina</i> Idaho Primrose	Primulaceae	15	SU			≽	Beav	3

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Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS	BLM Status	County Distribution	Range
Primula incana	Primulaceae	G4G5	S2			*	Beav, Madi	
Mealy Primrose Prunus pumila	Rosaceae	G5	S1				Fall	
Psilocarphus brevissimus Dwarf Woolly-heads	Asteraceae	G5	S1			M	Casc, Phil, Sand	
Psoralea hypogaea Little Indian Breadroot	Fabaceae	G5T4?	S2			W	Casc, Chou, Ferg, Rose	
Quercus macrocarpa Bur Oak	Fagaceae	G5	SI			S	Cart	
Ranunculus cardiophyllus Heart-leaved Buttercup	Ranunculaceae	G4G5	S2			≽	Glac, Swee, Tool	
Ranunculus gelidus Arctic Buttercup	Ranunculaceae	G4	SI	,			Stil	
Ranunculus hyperboreus Arctic Buttercup	Ranunculaceae	G\$	SI				Deer, Gall	
Ranunculus jovis Jove's Buttercup	Ranunculaceae	G4	S2		ß		Beav, Gall, Madi, Park	
Ranunculus orthorhynchus Straightbeak Buttercup	Ranunculaceae	GSTS	SI				Deer, Gran, Mine	
Ranunculus pedatifidus Northern Buttercup	Ranunculaceae	G5	S1			≽	Flat, Glac, Gran, Libe, Tool	
Ranunculus verecundus Timberline Buttercup	Ranunculaceae	G5	S2				Deer, Flat, Glac, Madi	i
Ribes cognatum Shinyleaf Gooseberry	Grossulariaceae	G4Q	SI				Linc, Mine, Sand	S.
Ribes triste Swamp Red Currant	Grossulariaceae	G5	S1				Deer, Gran, Mine, Rava	Ç G
Rorippa calycina Persistent-sepal Yellow-cress	Brassicaceae	ED .	S1		≽	≽	Casc, Chou, Cust, McCo, Yell	3

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Scientific Name							Distribution	_
	Family	Rank	Rank Status	Status	Status	Status	Status County Distribution	

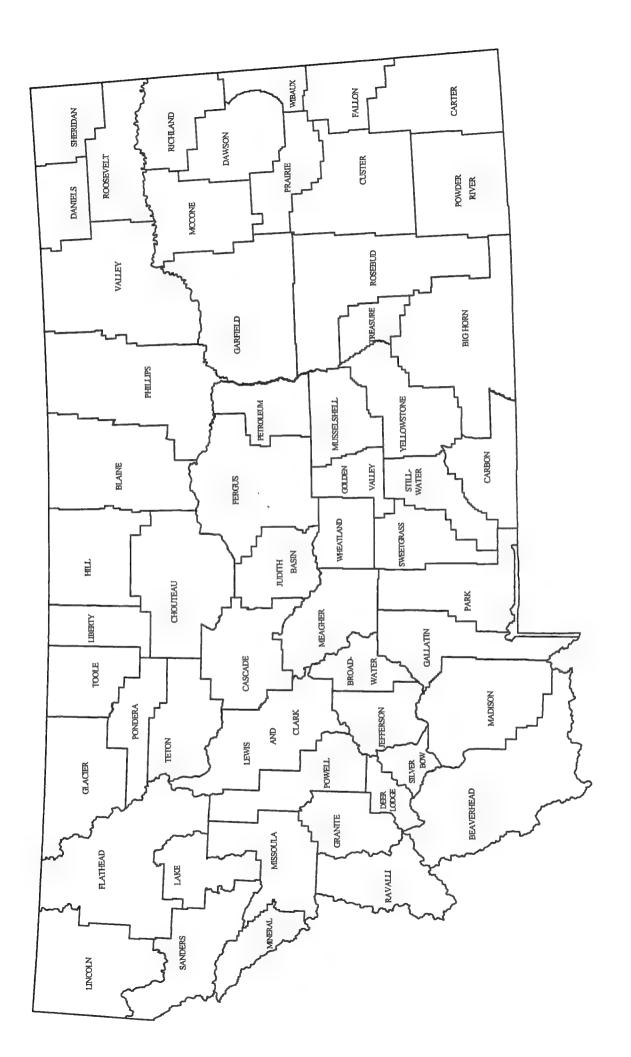
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Scientific Name	Family	Global Rank	State Rank	FWS	FS	BLM Status	County Distribution		Kange
Potala ramosior	Lythraceae	GS	SI				Lake, Miss, Rava		
Tootheup									
Sagina nivalis Arctic Pearlwort	Caryophyllaceae	G5	SI				Glac, Stil		
Salix barrattiana Barratt's Willow	Salicaceae	G5	SI		S		Carb, Glac		
Salix cascadensis Cascades Willow	Salicaceae	G4G5	S1				Deer		
Salix serissima Autumn Willow	Salicaceae	G4	S2		M	*	Glac, Meag, Teto	ç	
Salix wolfii var wolfii Wolfs Willow	Salicaceae	G5?T4	SZ		S		Deer, Gall, Madi, Park, Kaya, Swee	(ava, swee	
Satureja douglasii Yerba Buena	Lamiaceae	G4	S2				Miss, Rava, Sand		I
Saussurea densa Dwarf Saw-wort	Asteraceae	G3G5	S2		S		Lewi, Pond, Teto		RE
Saussurea weberi Weber's Saw-wort	Asteraceae	G3Q	S1		Ø		Gran		
Saxifraga apetala Tiny Swamp Saxifrage	Saxifragaceae	G3Q	S2				Beav, Carb		RE
Saxifraga hirculus Yellow Marsh Saxifrage	Saxifragaceae	G\$	SI				Carb	ß	Ç
Saxifraga tempestiva Storm Saxifrage	Saxifragaceae	G2	S		Ω.		Beav, Deer, Gran, Madı, Kava	, Kava	N IJ
Scheuchzeria palustris Pod Grass	Scheuchzeriaceae	G5	S2		S		Flat, Lake, Linc, Miss		
Scirpus cespitosus	Cyperaceae	G5	S2		PS		Beav, Flat, Powe, Teto		
Scirpus heterochaetus Slender Bulrush	Cyperaceae	G5	SI				Sher		

	Vascular Plant	Species of Special Concern, June 1997	f Speci	al Con	cern, Ju	ne 199	7(
Scientific Name Common Name	Family	Global Rank	State Rank	FWS Status	FS	BLM Status	County Distribution	Range Notes
Scirpus hudsonianus	Cyperaceae	G5	S1				Flat, Glac	
Scirpus pumilus	Cyperaceae	G3Q	SI				Glac, Teto	
Scirpus subterminalis Water Bulrush	Cyperaceae	G4G5	S2		S		Flat, Lewi, Linc, Miss	
Selaginella selaginoides Low Spike-moss	Selaginellaceae	G5	S2				Beav, Deer, Gran, Madi	
Senecio amplectens Clasping Groundsel	Asteraceae	G4T?	SI				Carb	
Senecio eremophilus Desert Groundsel	Asteraceae	GSTS	SI				Hill, Park	
Senecio pauciflorus Few-flowered Butterweed	Asteraceae	G4G5	SI				Flat	ţ
Shoshonea pulvinata Shoshonea	Apiaceae	G2G3	SI		S	S	Carb	5
Sidalcea oregana Oregon Checker-mallow	Malvaceae	G5	SI				Gall, Lake	U H
Silene spaldingii Spalding's Campion	Caryophyllaceae	G2	SI		\triangleright		Flat, Lake, Linc, Sand	2
Solidago ptarmicoides Prairie Aster	Asteraceae	G5	S1			i	Cart, Kien	
Solidago sparsiflora Few-flowered Goldenrod	Asteraceae	Ġ.	SI			≽	Gart, Stil	
<i>Sphaeralcea munroana</i> White-stemmed Globe-mallow	Malvaceae	G4	SI			5	Beav	
Sphaeromeria argentea Chicken Sage	Asteraceae	G3	S2			n	Beav Beav	
Sphenopholis intermedia Slender Wedgegrass	Poaceae	G5	SH			>	Gall	

	Vascular Plant	Species of Special Concern, June 1997	f Speci	al Con	cern, Ju	ne 19	97	
Scientific Name Common Name		Global Rank	State Rank	FWS	FS	BLM Status	County Distribution	Range
Spiranthes diluvialis Ute Ladies' Tresses	Orchidaceae	G2	SI	LT		W	Jeff, Madi	
Sporobolus asper Longleaf Dropseed	Poaceae	G5	SU			W	Cart, Cust	
Sporobolus neglectus Small Dropseed	Poaceae	G5	SO			≽	Gall, Sand, Whea	
Stellaria crassifolia Fleshy Stitchwort	Caryophyllaceae	G5	SI			*	Beav, Carb, Deer, Sand	
Stellaria jamesiana James Stitchwort	Caryophyllaceae	G5	S1			*	Beav	
Stephanomeria spinosa Spiny Skeletonweed	Asteraceae	G4	S1			≽	Beav, Madi	
Stipa lettermanii Letterman's Needlegrass	Poaceae	G5	S1				BigH, Madi	
Suckleya suckleyana Poison Suckleya	Chenopodiaceae	G5	SU				Roos, Vall	
Sullivantia hapemanii Wyoming Sullivantia	Saxifragaceae	G3T3	S1				BigH, Carb	
Taraxacum eriophorum Rocky Mountain Dandelion	Asteraceae	G4	S1			Ø	Beav, Gran, Madi	
Thalictrum alpinum Alpine Meadowrue	Ranunculaceae	GŞ	SI		S	Ø	Beav, Gran	
Thelypodium paniculatum Northwestern Thelypody	Brassicaceae	G3G4	SH			S	Beav	RE
Thelypodium sagittatum Slender Thelypody	Brassicaceae	G4T?	S2				Beav, Flat, Gall, Lake	
Thetypteris phegopteris Northern Beechfern	Thelypteridaceae	G5	S2		S		Flat, Glac, Linc, Sand	
Thlaspi parviflorum Small-flowered Pennycress	Brassicaceae	G3	S2		S		Beav, Carb, Madi, Park, Silv	RE

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			, ,		,	27.74		Donage
Scientific Name Common Name	Family	Global Rank	State Rank	FWS	Status	Status	County Distribution	Notes
Tofieldia pusilla Tofieldia	Liliaceae	G5	S2		7		Glac	
Townsendia condensata Cushion Townsendia	Asteraceae	G4	S2			W	Beav, Glac, Madi, Park	RE
Townsendia florifer Showy Townsendia	Asteraceae	G5	S1			W	Beav, Madi	
Townsendia leptotes Slender Townsendia	Asteraceae	G4	SU					
Trifolium cyathiferum Cup Clover	Fabaceae	G4	SI				Miss, Rava	
Trifolium eriocephalum Woolly-head Clover	Fabaceae	G4T3	SI		S		Rava	
Trifolium gymnocarpon Hollyleaf Clover	Fabaceae	G4	S2		S		Gran, Rava	
Utricularia intermedia Flat-leaved Bladderwort	Lentibulariaceae	G5	S1				Flat, Miss, Powe	
Vaccinium myrtilloides Velvetleaf Blueberry	Ericaceae	G5	S1		W		Flat	
Veratrum californicum California False-hellebore	Liliaceae	GS	S1		S	M	Gran	
Viburnum lentago Nannyberty	Caprifoliaceae	G5	S1				BigH, Roos	
Viguiera multiflora Many-flowered Viguiera	Asteraceae	G4G5	SU				Beav, Gall, Madi	
Viola renifolia Kidney-leaf White Violet	Violaceae	G5	S3		S	M	Flat, Glac, Jeff, Lake, Linc, Miss, Silv, Teto	
Waldsteinia idahoensis Idaho Barren Strawberry	Rosaceae	G3	SI		S		Miss	RE
Wolffia columbiana Columbia Water-meal	Lemnaceae	G5	S2			M	Flat, Lake, Miss, Rava	
Zizia aurea Golden Alexanders	Apiaceae	G5	SH				Jeff	
			93					



Watch Vascular Plant List, June 1997

The Watch Vascular Plant List is made up of two sets of species:

Limited distribution species (42 total) are species of biogeographic interest. They include species which are state endemics, and other species which are in highly restricted areas or habitats of the state. A process for compiling and presenting information on their distribution is under development.

Species of unresolved status (120 total) are species to evaluate for addition to the Montana Plant Species of Special Concern list in the future. The overriding status question fits into one of six cases revolving around taxonomy (taxonomic validity, resolving disputes of specimen identification), natural distribution (whether there is a specimen voucher, whether or not it was brought into the state by humans), vulnerability as reflected in response to unnatural disturbance, and completion of base-level information compilation (accession records from major Montana herbaria, published sources and any needed consultation). We have also included a seventh case for recurrent hybrids. A summary statement of their status is available upon request.

Collection label information and commentary are invited on any Watch List species, and MTNHP will continue evaluating their status. The scientific name and global rank of watch species are presented below.

Limited Distribution Species

Antennaria aromatica (G4)

Astragalus chamaeleuce (G5)

Astragalus lentiginosus var salinus (G5T5)

Astragalus leptaleus (G4)

Astragalus platytropis (G5)

Cardamine rupicola (G3)

Carex capitata (G5)

Carex misandra (G5)

Carex torreyi (G4)

Castilleja nivea (G3)

Castilleja pilosa var longispica (G4?T4)

Castilleja rustica (G4G5T3T4)

Chrysothamnus linifolius (G5)

Delphinium bicolor ssp calcicola (G4G5T3)

Draba daviesiae (G3)

Draba sp 1 (G3G4)

Erigeron allocotus (G3)

Erigeron coulteri (G5)

Erigeron flabellifolius (G3G4)

Eriogonum capistratum var muhlickii (G4T?)

Eriogonum lagopus (G3)

Eriophorum viridicarinatum (G5)

Gentiana aquatica (G4)

Gilia inconspicua (G5)

Haplopappus multicaulis (G4)

Ipomopsis congesta ssp pseudotypica (G5T?)

Mimulus suksdorfii (G4)

Oryzopsis contracta (G3)

Oxytropis lagopus var conjugens (G4T3)

Papaver pygmaeum (G3)

Pedicularis contorta var rubicunda (G5T2)

Pedicularis oederi (G5)

Pediocactus simpsonii (G4)

Penstemon carvi (G3)

Penstemon flavescens (G3)

Physaria saximontana var dentata (G3T2)

Senecio debilis (G3G4)

Sphaeromeria capitata (G3)

Synthyris canbyi (G3)

Synthyris missurica (G4)

Townsendia nuttallii (G3)

Townsendia spathulata (G3)

Species of Unresolved Status

Unresolved as native

Achillea sibirica (G5?)

Calamagrostis koelerioides (G5)

Gnaphalium purpureum var purpureum (G5TU)

Oxalis stricta (G5)

Physalis pumila (G5)

Polygonum polygaloides (G4G5)

Scirpus pendulus (G5)

Sparganium androcladum (G4G5)

Sporobolus vaginiflorus (G5)

Stipa thurberiana (G5)

Thelesperma megapotamicum (G5)

Tillaea aquatica (G5)

Viburnum opulus (G5)

Unresolved as vulnerable

Amaranthus californicus (G4)

Ambrosia acanthicarpa (G5)

Ambrosia tomentosa (G4)

Amsinckia lycopsoides (G?)

Bidens frondosa (G5)

Carex eburnea (G5)

Cuscuta pentagona var pentagona (G5T5)

Elatine americana (G4)

Erigeron flagellaris (G5)

Evax prolifera (G5)

Halimolobos virgata (G4)

Lemna minuta (G4)

Lemna valdiviana (G5)

Lilium columbianum (G4G5)

Madia minima (G4)

Watch Vascular Plant List, June 1997

Species of Unresolved Status (continued) -

Unresolved pending compilation of collection records

Agastache foeniculum (G4G5) Aster foliaceus var lyallii (G3?)

Astragalus kentrophyta var kentrophyta (G5T4)

Astragalus miser var crispatus (G5T3?)

Atriplex canescens (G5)

Carex jonesii (G5)

Carex lacustris (G5)

Claytonia cordifolia (G5)

Collomia debilis var camporum (G5T3)

Conimitella williamsii (G3)

Cryptogramma cascadensis (G5)

Floerkea proserpinacoides (G5)

Geum canadense (G5)

Hierochloe odorata (G5)

Huperzia haleakalae (G4?)

Impatiens aurella (G4?)

Impatiens ecalcarata (G3G4)

Juncus tweedyi (G3)

Juncus vaseyi (G5?)

Lilium philadelphicum (G5)

Penstemon montanus var idahoensis (G5T?)

Rubus arcticus (G5)

Saxifraga subapetala (G3G4Q)

Selaginella densa var standleyi (G5TU)

Unresolved pending specimen review

Antennaria neodioica ssp neodioica (G4G5T?)

Antennaria pulcherrima (G4G5)

Artemisia tilesii ssp unalaschcensis (G5T3)

Calamagrostis scopulorum (G5)

Carex brunnescens (G5)

Carex ebenea (G5)

Delphinium burkei (G4)

Hymenopappus filifolius var idahoensis (G5T4)

Hymenopappus filifolius var luteus (G5T?)

Juncus interior (G4G5)

Lomatium farinosum (G4G5)

Oenothera elata ssp hirsutissima (G5T?)

Tradescantia bracteata (G5)

Viola palustris (G5)

Viola septentrionalis (G5)

Unresolved report for Montana

Acorus americanus (G5)

Arabis sparsiflora var columbiana (G5TU)

Arabis sparsiflora var subvillosa (G5T?)

Artemisia longiloba (G5T4)

Aster simplex var ramosissimus (G5T?)

Camissonia tanacetifolia (G5)

Carex aenea (G5)

Unresolved report for Montana (continued)

Carex microglochin (G5?)

Carex microptera var crassinervia (G5?T3T4)

Carex pelocarpa (G3?)

Carex straminiformis (G4)

Castilleja crista-galli (G3)

Cirsium pulcherrimum (G5)

Cordylanthus capitatus (G4)

Eleocharis flavescens (G5)

Eriophorum scheuchzeri (G5)

Euthamia graminifolia (G5)

Galium cymosum (G?)

Geum rossii var rossii (G5T5)

Heterotheca villosa var depressa (G5T2)

Hierochloe alpina (G5)

Isoetes lacustris (G4G5)

Isoetes nuttallii (G4?)

Ligusticum porteri (G4G5)

Ligusticum verticillatum (G4G5)

Mimulus glabratus var fremontii (G5T?)

Muhlenbergia montana (G5)

Navarretia divaricata (G5)

Physalis hederifolia var comata (G5?T4?)

Poa macroclada (G3)

Potentilla concinna var macounii (G2?)

Salix petiolaris (G5)

Stipa lemmonii var lemmonii (G5T?)

Vaccinium ovalifolium (G5)

Verbena bipinnatifida (G5)

Vernonia fasciculata (G5T?)

Viola pedatifida (G5)

Unresolved taxonomy

Carex luzulina var atropurpurea (G5T3)

Cymopterus hendersonii (G5)

Delphinium geyeri (G5)

Draba lonchocarpa var exigua (G4T3)

Eleocharis bella (G5)

Eleocharis xyridiformis (G4Q)

Eriogonum chrysocephalum (GUQ)

Eriogonum umbellatum var aureum (G5TU)

Grindelia nana var integrifolia (G5T4)

Mirabilis albida (G5)

Senecio hyperborealis (G5)

Stellaria simcoei (G4Q)

Hybrid

Cypripedium x columbianum (HYB)

Equisetum x ferrissii (HYB)

Equisetum x trachyodon (HYB)

Spiraea x pyramidata (HYB)

Trisetum x orthochaetum (HYB)

Nonvascular Plants of Special Concern, June 1997

State Rank

Global

Introduction

state, including the most recent additions to the state flora. Global ranking follows that for vascular plants (see pages 1 and 2), however, state rank definitions for mosses have 70 years, and other species which have not been collected more than three times in the highly specialized habitat requirements, species which have not been collected for over U.S. Forest Service and subsequent evaluation (Elliot 1995). It includes species with The following list of mosses is based on a state floristic compilation prepared for the been modified as follows:

Definition Rank

- Potentially critical imperiled because of both species and habitat rarity (3 or fewer collections and highly restricted to rare habitat).
 - Potentially imperiled because of both species and habitat rarity (20 or fewer collections and highly restricted to rare habitat) **S**2
 - Historically known only from records before 1925; may be rediscovered. SH
- Unknown (3 or fewer collections but collection label is incomplete or habitat restrictions and habitat rarity are poorly known to rank the species) SU

barium in Missoula. Moss collectors are encouraged to use the Plant Species of Special Montana bryophyte collections are available for reference at the University of Montana Work is underway to enter location records for mosses based on existing collections; and the U.S. Forest Service's Intermountain Research Station Resource Center Herhowever, county of distribution information is not available at this time. Major Concern Survey Form when submitting information to MTNHP

Selected References

Conrad, H. S. and P. L. Redfern. 1979. How to know the mosses and liverworts. Wm.

- C. Brown Co., Dubuque, Iowa. 302 pp.
- the 1995 Montana Rare Plant Conference. Conservation Biology Research, Elliot, J. C. 1995. Rare mosses, rare habitats. Unpublished report for Helena, MT. 17 pp.
- (Reprinted from Moss flora of the Pacific Northwest). Hattori Botanical Lab., Lawton, E. 1971. Keys for the identification of the mosses of the Pacific Northwest Nichinan, Japan. 66 pp.
- Schoffeld, W. B. 1992. Some common mosses of British Columbia. Royal British Columbia Museum, Victoria, B.C. Canada. 394 pp.
- Vitt, D. H., J. E. Marsh and R. B. Bovey. 1988. Mosses, lichens and ferns of northwest North America. Lone Pine Publishing, Edmonton, Alberta, Canada. 296 pp.

Scientific Name	Family	Rank	Rank
Bryophytes		3000	CII
Aloina brevirostris	Pottiaceae	6363	TZ :
Amblyodon dealbatus	Meesiaceae	G3G5	N.
Bartramia stricta	Bartramiaceae	G?	SI
Rrochythecium reflexum	Brachytheciaceae	G4G5	SH
Rrochythecium turgidum	Brachytheciaceae	G3G5	S1
Bryum calobryoides	Bryaceae	G3	SH
Bryum calophyllum	Bryaceae	G?	SH
Bryum dichotomum	Bryaceae	G5?	S1
Rryum lonchocaulon	Bryaceae	G;	SI
Brum pallens	Bryaceae	G4G5	S1
Bryum schleicheri	Bryaceae	Ğ,	SI
Callicladium haldanianum	Hypnaceae	G5	SH
Callieroon richardsonii	Amblystegiaceae	G 3	S1
Callierson trifarium	Amblystegiaceae	G5	S1
Colliergonella cuspidata	Amblystegiaceae	G5	S1
Cotoscopium nigritum	Catoscopiaceae	G4G5	SI
Cinclidium styeium	Mniaceae	G5	S1
Crumia latifolia	Pottiaceae	G4	S1
Cynodontium tenellum	Dicranaceae	G?	SH
Dendroalsia abietina	Cryphaeaceae	G4	SH
Desmatodon cernuus	Pottiaceae	G3G5	SH
Desmatodon heimii	Pottiaceae	GS	SH
Dichodontium olympicum	Dicranaceae	G;	SI
Dicranella grevilleana	Dicranaceae	G?	S1
Dicranella heteromalla	Dicranaceae	G2	S1
Dicranoweisia cirrata	Dicranaceae	G4	SI
Dicranum acutifolium	Dicranaceae	G;	SI
Dicranum fragilifolium	Dicranaceae	G4G5	S1
Dicranum spadiceum	Dicranaceae	Ġ5	
Didymodon fallax var reflexus	Pottiaceae	G5T5?	
Didymodon rigidulus var gracilis	Pottiaceae	G5T5?	SI
Didymodon vinealis var brachyphyllus	Pottiaceae	G5T?	
Distichium inclinatum	Ditrichaceae	G4G5	SI
Entosthodon rubiginosus	Funariaceae	HS	SH
Eucladium verticillatum	Pottiaceae	G5	SI
Eurhynchium pulchellum var barnesii	Brachytheciaceae	G5T?	SI
Fabronia pusilla	Fabroniaceae	G5?	SI
Fissidens fontanus	Fissidentaceae	G5	SI
Funaria americana	Funariaceae	G2G3	SH

Nonvascular Plants of Special Concern, June 1997

	Nonvascular		lants of 3	Flants of Opecial Concern, June 1991			č
		Global	State			Global	State
	Family	Rank	Rank	Scientific Name	Family	Rank	Kank
Scientific Name				Bryonhytes (continued)			
Bryophytes (continued)		5	61	Pseudocrossidium obtusulum	Pottiaceae	<u>.</u>	SI
Grimmia brittoniae	Grimmiaceae	518	10	Description of the second of t	Pottiaceae	Ċ;	S1
Grimmia incurva	Grimmiaceae	G4G3	SI	rierygonenium unneumum	Dottiscese	G42	SI
Crimmia mollis	Grimmiaceae	G3G5	SI	Pterygoneurum subsessue	Deschowitziocoso	2	V.
The state of the s	Hypnaceae	G4G5	SI	Ptychomitrium gardneri	Ptycholintiacae	ָר כ	5 5
Herzogiella striuena	Hypnaceae	G4G5	SI	Racomitrium aquaticum	Grimmiaceae	5 6	21
Herzogiella turfacea	11yphaccac	5 5	17	Racomitrium brevipes	Grimmiaceae	اق	2
Hygroamblystegium noterophilum	Ambiystegiaceae	5 8	1 2	Dacomitrium manualim	Grimmiaceae	<u>.:</u>	SI
Hygrohypnum cochlearifolium	Amblystegiaceae	5	10	Aucomin and Pyenacan	Amblystegiaceae	G4G5	SI
Hypnim callichroum	Hypnaceae	ان	SI	Sarmeninypnum sarmenusum	Cohistosterapa	G4G5	25
Vicario blutti	Dicranaceae	GS	S1	Schistostega pennata	Schlistostegacae	2010	10
Klaeria otyttii	Dicranaceae	GS	S1	Scorpidium scorpioides	Ambiystegiaceae	540	12
Kiaeria jaicata	Dicranaceae	GS	S1	Seligeria donniana	Sellgeriaceae	5463	200
Kiaeria starkei	Maiocoo	C.4	5	Sphagnum centrale	Sphagnaceae	S	SI.
Leucolepis acanthoneuron	Miniacac	75.55		Sphagnum compactum	Sphagnaceae	GS	S
Meesia longiseta	Meeslaceae	ה לכם ה	10	Sphoonim confortum	Sphagnaceae	SS	SI
Meesia triquetra	Meesiaceae	3 3	12 2	Capacitin fallox	Sphagnaceae	G5	SI
Meesia uliginosa	Meesiaceae	G	21	Spindsnum Junes	Sphagnaceae	GS	S1
Miolichhoferia macrocarpa	Bryaceae	G;	SI	Sphagnum Jimoriaium	Spingmareae	GS	SI
Ministration forestring	Pterigynandraceae	G2G3	S1	Sphagnum girgensonnii	Opingalacous	35	V.
Myureila terter inta	Neckeraceae	G4	S1	Sphagnum magellanicum	Spinagilaceae	3 2	7 7
Neckera aouglasii	Neckeraceae	GS	S1	Sphagnum mendocinum	Sphagnaceae	5 8	1 2
Neckera pennaia	Dolytrichaceae	G5	S1	Sphagnum platyphyllum	Sphagnaceae	S 8	100
Oligotrichum aligerum	Orthotrichaceae	<u>5</u>	SI	Sphagnum riparium	Sphagnaceae	5 6	7 5
Orthotrichum praemorsum	Of ulou remaced		HS	Sphagnum subnitens	Sphagnaceae	3	SI
Oxystegus tenuirostris	Folliaceae	6365	17	Sphagnum wulfianum	Sphagnaceae	S)	S
Paludella squarrosa	Meeslaceae	050	2 12	Stegonia latifolia	Pottiaceae	Ğ,	
Paraleucobryum enerve	Dicranaceae	i i	2 5	Tayloria acuminata	Splachnaceae	G3G4	SH
Paraleucobryum longifolium	Dicranaceae	3 8	10	Tailoria lingulata	Splachnaceae	G3G5	
Phascum cuspidatum	Pottiaceae	S		Taylor in mission	Splachnaceae	G5	
Physcomitrium hookeri	Funariaceae	G2G4	HZ i	Tayloria serraia	Splachnaceae	G3?	
Physcomitrium pyriforme	Funariaceae	8	SO.	I etraptoaon angustatus	Thamnobrvaceae	G;	SH
Dlaciohamm domissum	Bryaceae	G;	SI	I namnobryum necker olaes	Dottioned	G2G4	
rugiooryum acmedia	Bryaceae	G3G4	S1	Tortula bartramii	rollaceae	5	
Plagiobryum zieri	Brachytheciaceae	GS	S1	Tortula muralis	Pottiaceae	3 8	2 5
Platyhypnidium riparioides	Diacity incolactic	G3G4		Tortula norvegica	Pottiaceae	S	S
Pohlia drummondii	Drigosa	5 6		Tortula papillosa	Pottiaceae	GS	20 0
Pohlia obtusifolia	Diyaccac	j &	HS	Trachybryum megaptilum	Brachytheciaceae	C 4	2
Pohlia vexans	Dolytrichaceae	<u>.</u>	S1	Warnstorfia exannulata	Amblystegiaceae	G5	S
Polytrichum lyallıı	Thamnohrvaceae	5	S1				
Porotrichum bigetoviti	Amblystegiaceae	G3G5		Lichen	Darmeliaceae	62	SI
rseddocamer borner occern	•			Bryoria subdivergens	1 almonacous)	ì }

New Botany Reports and Publications

Listed below are botany reports and publications which were produced through the Montana Natural Heritage Program over the past year as of June, 1997. Complete lists of MTNHP botany literature are available, as are botanical reference search services by geographic area, by species, or by select keywords. In addition, a complete bibliography of Montana reports and reports of all heritage Programs in the West can be found on our home page (http://nris.mt.gov/mtnhp).

- Elliott, J. and T. Spribille. 1997. Preliminary list of mosses of the Kootenai National Forest. Unpublished report to the Kootenai National Forest. Montana Natural Heritage Program, Helena. 21 pp.
- Elliott, Joe C. 1997. Moss flora of Giant Springs State Park.
 Unpublished report to Montana Department of
 Fish, Wildlife, and Parks, Great Falls. Montana
 Natural Heritage Program, Helena. 5 pp.
- Heidel, B. L. 1996. Region 4 sensitive species inventories.
 Unpublished memo to the Montana Department of
 Fish, Wildlife and Parks, Great Falls. Montana
 Natural Heritage Program, Helena. 6 pp. +
 appendices
- Heidel, B. L. 1997. Woodhawk botanical survey, Fergus
 County, Montana. Unpublished report to the Bureau
 of Land Management. Montana Natural Heritage
 Program, Helena. 43 pp. + appendices
- Heidel, B. L. 1997. Interim report on the conservation status of *Spiranthes diluvialis* Sheviak in Montana. Unpublished report to U. S. Fish and Wildlife Service. Montana Natural Heritage Program, Helena. 33 pp. + appendices
- Heidel, B. L. 1997. Botanical survey of the Alkali Lake area, Blackfeet Indian Reservation. Unpublished draft report. Montana Natural Heritage Program, Helena.

- Heidel, B. L. and J. S. Shelly. 1997. The effects of fire on Penstemon lemhiensis - monitoring establishment report, 1995 and 1996. Unpublished report to the Beaverhead National Forest and the Bureau of Land Management. Montana Natural Heritage Program, Helena. 11 pp. + appendices
- Lesica, P. 1996. Effects of grazing on Arabis fecunda.

 Unpublished report to the Bureau of Land Management. Montana Natural Heritage Program, Helena.

 5 pp. + appendices
- Shapley, M. and P. Lesica. 1997. Howellia aquatilis (Water Howellia) Pond of the Swan Valley: Conceptual hydrologic models and ecological implications. Unpublished report to U.S. Fish and Wildlife Service. Montana Natural Heritage Program and Conservation Biology Research. 44 pp.
- Vanderhorst, J. 1997. Conservation assessment of sensitive moonworts (BOTRYCHIUM subgenus BOTRYCHIUM) on the Kootenai National Forest.

 Montana Natural Heritage Program, Helena. 82 pp. + appendices
- Vanderhorst, J. 1997. Status review of Clarkia rhomboidea in Montana. Unpublished report to the Kootenai National Forest. Montana Natural Heritage Program, Helena. 19 pp. + appendices
- Vanderhorst, J., B. L. Heidel, J. Pierce, and S. V. Cooper. 1997. Botanical survey of the Ruby Range, Madison County, Montana. Unpublished report to Bureau of Land Management. Montana Natural Heritage Program, Helena. 47 pp. + appendices

${f V}$ ascular ${f P}$ lants of ${f S}$ pecial ${f C}$ oncern -- ${f F}$ amilies

Adoxaceae

Adoxa moschatellina

Apiaceae

Conioselinum scopulorum Lomatium attenuatum Lomatium geyeri Lomatium nuttallii Orogenia fusiformis Shoshonea pulvinata Zizia aurea

Asclepiadaceae

Asclepias incarnata Asclepias ovalifolia Asclepias stenophylla

Aspleniaceae

Asplenium trichomanes

Asteraceae Agoseris lackschewitzii Antennaria densifolia Artemisia norvegica var saxatilis Aster frondosus Aster glaucodes Balsamorhiza macrophylla Bidens beckii Bidens comosa Chrysothamnus parryi ssp montanus Cirsium brevistylum Cirsium longistylum Erigeron asperugineus Erigeron eatonii ssp eatonii Erigeron evermannii Erigeron formosissimus var viscidus Erigeron lackschewitzii Erigeron leiomerus Erigeron linearis Eupatorium maculatum Eupatorium occidentale Grindelia howellii Haplopappus aberrans Haplopappus carthamoides var subsquarrosus Haplopappus macronema var macronema Haplopappus nanus Haplopappus pygmaeus Helenium hoopesii Lagophylla ramosissima

Malacothrix torreyi

Saussurea densa

Saussurea weberi

Senecio amplectens

Senecio eremophilus

Senecio pauciflorus

Solidago ptarmicoides

Petasites frigidus var nivalis

Psilocarphus brevissimus

Asteraceae (continued)

Solidago sparsiflora Sphaeromeria argentea Stephanomeria spinosa Taraxacum eriophorum Townsendia condensata Townsendia florifer Townsendia leptotes Viguiera multiflora

Boraginaceae

Cryptantha fendleri Cryptantha flavoculata Cryptantha humilis Cryptantha scoparia Mertensia bella Myosotis verna Plagiobothrys leptocladus

Brassicaceae

Arabis demissa var languida Arabis fecunda Arabis lyrata var kamchatica Athysanus pusillus Braya humilis Cardamine oligosperma var kamtschatica Draba densifolia Draba fladnizensis Draba globosa Draba macounii Draba porsildii Draba ventosa Halimolobos perplexa var lemhiensis Hutchinsia procumbens Idahoa scapigera Lesquerella carinata var languida Lesquerella humilis Lesquerella lesicii Lesquerella paysonii Lesquerella pulchella Physaria brassicoides Physaria didymocarpa var lanata Rorippa calycina Thelypodium paniculatum Thelypodium sagittatum Thlaspi parviflorum

Cabombaceae

Brasenia schreberi

Campanulaceae

Downingia laeta Heterocodon rariflorum Howellia aquatilis Lobelia spicata

Capparaceae

Cleome lutea

Caprifoliaceae

Viburnum lentago

Carvophyllaceae

Sagina nivalis Silene spaldingii Stellaria crassifolia Stellaria jamesiana

Celastraceae

Celastrus scandens

Chenopodiaceae

Atriplex truncata Chenopodium subglabrum Gravia spinosa Kochia americana Suckleva suckleyana

Crossosomataceae

Glossopetalon nevadense

Cyperaceae Carex amplifolia Carex chalciolepis Carex chordorrhiza Carex comosa Carex crawei Carex gravida Carex incurviformis var incurviformis Carex lenticularis var dolia Carex livida Carex multicostata Carex nelsonii Carex neurophora Carex norvegica ssp inserrulata Carex norvegica ssp stevenii Carex occidentalis Carex parryana ssp idahoa Carex paupercula Carex petricosa Carex prairea Carex rostrata Carex scoparia Carex stenoptila Carex sychnocephala Carex tenuiflora Carex tincta Carex vaginata Cyperus acuminatus Cyperus erythrorhizos Cyperus rivularis Cyperus schweinitzii Eleocharis rostellata Eriophorum callitrix Eriophorum gracile Hemicarpha drummondii

Kobresia macrocarpa

Scirpus heterochaetus

Scirpus cespitosus

Kobresia simpliciuscula

Cyperaceae (continued)

Scirpus hudsonianus Scirpus pumilus Scirpus subterminalis

Droseraceae

Drosera anglica Drosera linearis

Dryopteridaceae

Cystopteris montana Dryopteris cristata Polystichum kruckebergii Polystichum scopulinum

Elatinaceae

Elatine brachysperma Elatine californica

Ericaceae

Arctostaphylos patula Kalmia occidentalis Vaccinium myrtilloides

Amorpha canescens

Fabaceae

Astragalus aretioides Astragalus barrii Astragalus ceramicus var apus Astragalus convallarius Astragalus geyeri Astragalus grayi Astragalus molybdenus Astragalus oreganus Astragalus racemosus Astragalus scaphoides Astragalus terminalis Dalea enneandra Dalea villosa Lathyrus bijugatus Oxytropis campestris var columbiana Oxytropis deflexa var foliolosa Oxytropis parryi Oxytropis podocarpa Psoralea hypogaea Trifolium cyathiferum Trifolium eriocephalum Trifolium gymnocarpon

Fagaceae

Ouercus macrocarpa

Fumariaceae

Corydalis sempervirens

Gentianaceae

Centaurium exaltatum Eustoma grandiflorum Gentiana glauca Gentiana prostrata Gentianella tenella Gentianopsis macounii

Vascular Plants of Special Concern - Families

Gentianaceae (continued)

Gentianopsis simplex Halenia deflexa Lomatogonium rotatum

Grossulariaceae

Ribes cognatum Ribes triste

Hydrocharitaceae

Elodea longivaginata Nama densum Phacelia incana Phacelia scopulina Phacelia thermalis

Juncaceae

Juncus acuminatus
Juncus albescens
Juncus covillei var covillei
Juncus covillei var obtusatus
Juncus hallii
Juncus triglumis

Juncaginaceae

Lilaea scilloides

Lamiaceae

Agastache cusickii Satureja douglasii Wolffia columbiana

Lentibulariaceae

Utricularia intermedia

Liliaceae

Allium acuminatum
Allium columbianum
Allium fibrillum
Allium parvum
Allium simillimum
Calochortus bruneaunis
Maianthemum canadense
Tofieldia pusilla
Veratrum californicum

Loasaceae

Mentzelia montana Mentzelia nuda Mentzelia pumila

Lycopodiaceae

Lycopodium dendroideum Lycopodium inundatum Lycopodium lagopus Lycopodium sitchense

Lythraceae

Ammannia coccinea Rotala ramosior

Malvaceae

Sidalcea oregana Sphaeralcea munroana Monotropaceae Allotropa virgata

Najadaceae

Najas guadalupensis

Nyctaginaceae Mirabilis hirsuta

Nymphaeaceae

Nymphaea tetragona

Onagraceae

Boisduvalia densiflora Camissonia andina Camissonia parvula Clarkia rhomboidea Oenothera pallida var idahoensis

Ophioglossaceae

Botrychium ascendens
Botrychium campestre
Botrychium crenulatum
Botrychium hesperium
Botrychium lineare
Botrychium minganense
Botrychium montanum
Botrychium paradoxum
Botrychium pedunculosum
Botrychium spathulatum
Ophioglossum pusillum

Orchidaceae

Amerorchis rotundifolia Cypripedium fasciculatum Cypripedium parviflorum Cypripedium passerinum Epipactis gigantea Goodyera repens Liparis loeselii Spiranthes diluvialis

Papaveraceae

Papaver kluanensis

Poaceae

Agrostis borealis
Calamagrostis tweedyi
Dichanthelium oligosanthes var
scribnerianum
Elymus flavescens
Elymus innovatus
Festuca vivipara
Phippsia algida
Poa curta
Poa laxa ssp banffiana
Sphenopholis intermedia
Sporobolus asper
Sporobolus neglectus
Stipa lettermanii

Polemoniaceae

Collomia tinctoria
Gymnosteris parvula
Ipomopsis congesta ssp
crebrifolia
Ipomopsis minutiflora
Leptodactylon caespitosum
Phlox andicola
Phlox kelseyi var missoulensis

Polygonaceae

Eriogonum caespitosum
Eriogonum salsuginosum
Eriogonum visheri
Koenigia islandica
Polygonum douglasii ssp
austinae

Pontederiaceae

Heteranthera dubia

Portulacaceae

Claytonia arenicola
Lewisia columbiana var
wallowensis
Lewisia pygmaea var
nevadensis

Potamogetonaceae

Potamogeton obtusifolius

Primulaceae

Centunculus minimus Primula alcalina Primula incana

Ranunculaceae

Aquilegia brevistyla
Aquilegia formosa
Ranunculus cardiophyllus
Ranunculus gelidus
Ranunculus hyperboreus
Ranunculus jovis
Ranunculus orthorhynchus
Ranunculus pedatifidus
Ranunculus verecundus
Thalictrum alpinum

Rhamnaceae

Ceanothus herbaceus var pubescens

Rosaceae

Cercocarpus montanus var glaber Dryas integrifolia Potentilla brevifolia Potentilla hyparctica Potentilla plattensis Potentilla quinquefolia Potentilla uniflora Prunus pumila Waldsteinia idahoensis Rubiaceae

Kelloggia galioides

Salicaceae

Salix barrattiana Salix cascadensis Salix serissima Salix wolfii var wolfii

Saxifragaceae

Chrysosplenium tetrandrum Saxifraga apetala Saxifraga hirculus Saxifraga tempestiva Sullivantia hapemanii

Scheuchzeriaceae

Scheuchzeria palustris

Scrophulariaceae

Bacopa rotundifolia Castilleja cervina Castilleja covilleana Castilleja exilis Castilleja gracillima Euphrasia arctica var disjuncta Gratiola ebracteata Linaria canadensis Mimulus breviflorus Mimulus nanus Mimulus primuloides Penstemon angustifolius Penstemon attenuatus var militaris Penstemon globosus Penstemon grandiflorus Penstemon lemhiensis Penstemon payettensis Penstemon whippleanus

Selaginellaceae

Selaginella selaginoides

Thelypteridaceae

Thelypteris phegopteris

Violaceae

Viola renifolia

Forest Service Sensitive Plant List

Threatened

Howellia aquatilis

Sensitive

Adoxa moschatellina Agoseris lackschewitzii Allium acuminatum Allium fibrillum Allotropa virgata Amerorchis rotundifolia Antennaria densifolia Aquilegia brevistyla Arabis fecunda Asplenium trichomanes Astragalus barrii Astragalus molybdenus Athysanus pusillus Balsamorhiza macrophylla Botrychium ascendens Botrychium crenulatum Botrychium hesperium Botrychium minganense Botrychium montanum Botrychium paradoxum Carex chordorrhiza Carex livida Carex parryana ssp idahoa Carex paupercula Castilleja covilleana Castilleja gracillima Chrysothamnus parryi ssp montanus Clarkia rhomboidea Cypripedium fasciculatum Cypripedium parviflorum Cypripedium passerinum Drosera linearis Dryopteris cristata Elymus innovatus Epipactis gigantea Erigeron asperugineus Erigeron evermannii Erigeron linearis Eupatorium occidentale Gentianopsis simplex Glossopetalon nevadense Goodyera repens Grindelia howellii Halimolobos perplexa var lemhiensis Haplopappus aberrans Haplopappus macronema var macronema Idahoa scapigera Juncus hallii Kobresia macrocarpa Lesquerella humilis

Sensitive (continued)

Lesquerella paysonii Lesquerella pulchella Liparis loeselii Lomatium geveri Lycopodium inundatum Mentzelia pumila Mertensia bella Mimulus primuloides Ophioglossum pusillum Orogenia fusiformis Oxviropis podocarpa Penstemon lemhiensis Phlox kelseyi var missoulensis Polygonum douglasii ssp austinae Potamogeton obtusifolius Ranunculus jovis Salix barrattiana Salix wolfii var wolfii Saussurea densa Saussurea weberi Saxifraga tempestiva Scheuchzeria palustris Scirpus subterminalis Shoshonea pulvinata Thalictrum alpinum Thelypteris phegopteris Thlaspi parviflorum Trifolium eriocephalum Trifolium gymnocarpon Veratrum californicum Viola renifolia Waldsteinia idahoensis

Watch

Carex lenticularis var dolia Erigeron eatonii ssp eatonii Kobresia simpliciuscula Mentzelia nuda Penstemon attenuatus var militaris Rorippa calycina Salix serissima Silene spaldingii Vaccinium myrtilloides

Proposed Sensitive

Agastache cusickii Astragalus scaphoides Botrychium spathulatum Erigeron lackschewitzii Eriophorum gracile Gentianopsis macounii Halenia deflexa Petasites frigidus var nivalis Scirpus cespitosus

Bureau of Land Management Sensitive Plant List

Sensitive

Agastache cusickii Arabis fecunda Astragalus ceramicus var apus Astragalus scaphoides Astragalus terminalis Camissonia andina Camissonia parvula Carex crawei Carex parryana ssp idahoa Cryptantha scoparia Elymus flavescens Eriogonum salsuginosum Lesquerella carinata var languida Lesquerella lesicii Lesquerella pulchella Lomatium attenuatum Malacothrix torreyi Nama densum Oenothera pallida var idahoensis Penstemon lemhiensis Penstemon whippleanus Ouercus macrocarpa Shoshonea pulvinata Sphaeromeria argentea Taraxacum eriophorum Thalictrum alpinum Thelypodium paniculatum

Watch

Adoxa moschatellina Amerorchis rotundifolia Arabis demissa var languida Asclepias ovalifolia Asclepias stenophylla Asplenium trichomanes Astragalus aretioides Astragalus barrii Astragalus convallarius Astragalus oreganus Astragalus racemosus Atriplex truncata Bacopa rotundifolia Balsamorhiza macrophylla Bidens comosa Carex gravida Carex multicostata Carex occidentalis Castilleja gracillima Ceanothus herbaceus var pubescens Celastrus scandens Centunculus minimus Cercocarpus montanus var glaber Chenopodium subglabrum Cleome lutea Conioselinum scopulorum Cryptantha fendleri Cryptantha humilis

Watch (continued)

Cyperus acuminatus Cyperus schweinitzii Cypripedium parviflorum Dalea enneandra Dalea villosa Dichanthelium oligosanthes var scribnerianum Downingia laeta Draba globosa Eleocharis rostellata Elodea longivaginata Epipactis gigantea Erigeron asperugineus Erigeron formosissimus var viscidus Eupatorium maculatum Eustoma grandiflorum Gentianopsis simplex Grayia spinosa Haplopappus carthamoides var subsquarrosus Hutchinsia procumbens Leptodactylon caespitosum Lesquerella klausii Linaria canadensis Lomatium nuttallii Lomatogonium rotatum Lycopodium dendroideum Mentzelia nuda Mentzelia pumila Mirabilis hirsuta Najas guadalupensis Penstemon angustifolius Phacelia incana Phacelia scopulina Phacelia thermalis Phlox andicola Plagiobothrys leptocladus Poa curta Potentilla plattensis Primula alcalina Primula incana Psilocarphus brevissimus Psoralea hypogaea Ranunculus cardiophyllus Ranunculus pedatifidus Rorippa calycina Salix serissima Solidago sparsiflora Sphenopholis intermedia Spiranthes diluvialis Sporobolus asper Sporobolus neglectus Stellaria crassifolia Stellaria jamesiana Stephanomeria spinosa Townsendia condensata Townsendia florifer Veratrum californicum Viola renifolia

Wolffia columbiana

$P_{lant} \ S_{pecies} \ of \ S_{pecial} \ C_{oncern} \ S_{urvey} \ F_{orm}$

1997 Revision MONTANA NATURAL HERITAGE PROGRAM 1515 E. Sixth Avenue, Helena, MT 59620-1800

SCIENTIFIC NAME: _			DATE OF SURVEY://
OBSERVER(S):			
WORK LOCATION / Location: (attach a copoutlined, one map for e	ADDRESS: oy of pertinent 7.5' or 15' topo ach sensitive species described	graphic map section with loc l.)	ations of populations/subpopulations
COUNTY:		USGS QUAD:	
			1/4 SEC.:
NATL. FOREST DIST	RICT/BLM DISTRICT RA/	OTHER:	
DIRECTIONS TO SIT	TE (Refer to towns, roads, trail	s, other geographic features):	
Species Autecology			
TOTAL NUMBER OF	FINDIVIDUALS (estimated of	or exact population count; su	m clumps or stems if vegetative):
SIZE OF AREA COV	ERED BY POPULATION (a	cres):	
PHENOLOGY (% flov	wering, fruiting, vegetative): _		
EVIDENCE OF DISE	ASE, PREDATION, INJURY	7 :	
EVIDENCE OF SEEL	DISPERSAL, ESTABLISH	MENT:	
	ND/OTHER COMMENTS: _ e distinguishing features of the		adding landform and the nature of the

LEVATION (mean or range):ASPECT: _N _NE _E _SE _S _SW _W _NW
SLOPE: SLOPE SHAPE Concave Convex Straight Other
OPOGRAPHY: Crest Upper Mid Lower Bottom Other
OISTURE: Dry Moist Saturated Inundated Seasonal seepage Other
IGHT EXPOSURE: Open Shaded Partial shade Other
ARENT MATERIAL:
URFACE COVER (TOTAL %): MOSS/LICHEN BASAL VEG BARE GROUND
OIL TEXTURE/SERIES:
CANOPY COVER: TREE (%) SHRUB (%) FORB (%) GRAMINOID(%)
LANT COMMUNITY: (dominant species at present, age and structure notes):
CLIMAX VEGETATION (if not above):
ADDITIONAL ASSOCIATED PLANTS (include most common, conspicuous, and characteristic spp.):
EVIDENCE OF DISTURBANCE:
Documentation:
Documentation: PHOTOGRAPH TAKEN? (if so, indicate photographer and depository):
SPECIMEN TAKEN? (if so, list collector, collection #, and repository):
SPECIMEN TAREN: (II so, list concert), 1911
IDENTIFICATION (name of person making determination, and/or flora used):
ECODATA PLOT NUMBER (attach photocopied data sheets):
OTHER DOCUMENTATION OR REFERENCES: Comments:
Comments: